

REMARKS

Reconsideration and allowance of the present application are respectfully requested.

Claims 1-6 and 9-18 remain pending in this application. Claims 7 and 8 have been cancelled. Claims 17 and 18 have been added.

Claims 1 and 14 have been amended by essentially incorporating the subject matter of claim 8. Claim 8 has been accordingly cancelled. Claim 7 has also been cancelled. Claim 17 has been added as supported in the subject application including at page 31, line 3 and claim 18 has been added as supported in the subject application including at page 20, lines 29-32. No new matter has been added.

The applicant's U.S. patent counsel wishes to express his appreciation to Examiner Thornton for the courtesy extended during the interview of August 28, 2003. During the interview, the rejection of claims 1-16 under 35 USC 102(b) in view of Coppens et al. (USP 5,273,858) was discussed and it is sincerely believed that the interview materially advanced prosecution of this application. The above noted new claims and claim revisions are believed to be commensurate with the discussions during the interview.

With respect to the rejection set forth in the last Office Action (dated April 2, 2003), the applicants continue to respectfully traverse the rejection of claims 1-16 under 35 USC 102(b) in view of Coppens et al., USP 5,273,858 (Coppens '858). This reference does not anticipate the presently claimed invention or make it obvious.

Please recall that an object of the present invention is to provide a method of processing a light-sensitive material which can uniformly and completely remove a

light-sensitive layer within a short period of time without using a washing solution (see description on page 7, lines 2-5 of the present specification).

The present invention provides a method of processing a light-sensitive material which can remove the light-sensitive layer uniformly and completely within an extremely short period of time, i.e., within 3 seconds with the time of contacting the light-sensitive layer with a peeling means. Such an object of the present invention can be accomplished by employing a peeling means as defined, for example, in presently amended claims 1 and 14. The removal of the light-sensitive layer uniformly and completely within 3 seconds is nowhere disclosed, suggested or even vaguely hinted by the teachings of Coppens '858.

To better demonstrate that the presently claimed invention is not disclosed or suggested by the teachings of Coppens '858, the applicants provide comparative experimental results demonstrating new and unexpected results of the presently claimed invention. The experimental evidence is presented in a Rule 132 Declaration which is attached to this Amendment.

The Examiner is asked to carefully review the attached Rule 132 Declaration.

Experiments were performed to compare the presently claimed invention with Coppens '858. In the Declaration, the Peeling sheet A represented the presently claimed invention and the Peeling sheets B and C represented those of Coppens '858. The Table of results at page 4 of the Declaration show the degree of removing the emulsion layer and the resulting ink-receptive property for the three samples. The results show that the Peeling sheet A, representing the presently claimed invention, peels off the emulsion layer completely with a contact time of about 3 seconds or shorter and particularly with the extremely short time of about 0.2 seconds, yielding a good ink-receptive property.

In contrast, with respect to the Peeling sheets B and C representing Coppens '858, it was only possible to peel off the emulsion layer with a contact time of about 6 seconds. With a shorter contact time, the peeling of the emulsion layer became unacceptably worse and no peeling was possible for the contact time of about 0.2 seconds.


Thus, the experimental results demonstrate that the Coppens '858 peeling sheet which does not satisfy the requirements of the presently claimed invention is used as a peeling means for peeling an emulsion layer, then poor results are obtained. The Rule 132 Declaration shows superior, new and unexpected results of the presently claimed invention.

The applicants submit that not only is the presently claimed invention fully allowable under Section 102(b) but is also allowable under Section 103(a) in view of Coppens '858.

In view of the above and the attached Rule 132 Declaration, it is believed that this application is in condition for allowance and a Notice to that effect is respectfully requested.

Respectfully submitted,

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : Shigeyoshi SUZUKI et al.
Serial No. : 09/712,182
Filed : November 15, 2000
For : METHOD OF PROCESSING LIGHT-SENSITIVE
MATERIAL
Art Unit : 1752
Examiner : Yvette C. Thornton

Hon. Commissioner of Patents
and Trademarks
Washington, D.C. 20231

DECLARATION UNDER 37 CFR 1.132

S I R:

I, Yasuo TSUBAI do declare and state as follows:

1. I am one of the joint inventors of the present U.S. Patent Application as identified above and understand the English language. I studied the Official Action dated April 2, 2003 received in said application.
2. In order to show the difference between the present invention

and the invention of Coppens et al. (US 5,273,858), the following comparative experiments shown on pages 32-35 of the present specification were conducted under my supervision.

3. Comparative experiments

Experiment

In the same manner as in Example 1 mentioned on pages 28-31 of the present specification, physical development nuclei layer was coated on an aluminum support and dried.

In the same manner as in Example 1 mentioned above, a silver halide emulsion was prepared.

A surfactant was added to the thus prepared silver halide emulsion to prepare a coating solution. This coating solution for an emulsion layer was coated on the aluminum support on which the above-mentioned physical development nuclei had been coated, so that an amount of silver became 2 g/m^2 (which is 3.15 g in terms of silver nitrate) and a gelatin amount of 2 g/m^2 , followed by drying to obtain a lithographic printing material.

On the thus prepared lithographic printing material (A2 size), an image was outputted by an output machine having a red LD laser at 633 nm as a light source. Then, the lithographic printing material was processed by a processor for plate making shown in Fig. 1 attached to the present specification to obtain a lithographic printing plate.

The developing solution, the neutralizing solution and the finishing solution used were the same as those of Example 1.

The developing solution was coated by using the coating apparatus (1) shown in Fig. 1 so that the amount thereof became 70 ml per 1 m² of the lithographic printing material (P). The temperature of the developing solution was 23°C. Fifteen seconds after coating the developing solution, a master roll (5) of a peeling sheet was moved so that a roll state-peeling sheet (2) was brought into close contact with the plate surface by nip rolls (3) and a silver halide emulsion layer was peeled off. Thereafter, the peeling sheet (2) was rolled in a roll state (6). Squeegee rolls (4) were not used. The following materials were used for preparing the peeling sheet.

Peeling sheet A: A material having a void layer prepared by coating on a polyethylene resin coated paper an aqueous dispersion in which 100 parts by weight of dry-method silica having an average grain size of 8 nm and 40 parts by weight of polyvinyl alcohol were dispersed in water with a polyvinyl alcohol amount of 6 g/m².

Peeling sheet B: A material comprising an aqueous solution containing gelatin and polyvinyl pyrrolidone with a weight ratio of 1:1 being coated on a polyethylene resin coated paper in an amount of a polymer solid component of 6 g/m².

Peeling sheet C: A material in which a gelatin layer containing 5% by weight of silica particles having an average particle size of 5 μm based on the amount of gelatin is coated on a polyethylene resin-coated paper in a gelatin amount of 3 g/m² and cured.

In the measurement of using a dynamic scanning liquid-absorption meter (available from Kyowa Seiko K.K., trade name: KM350D), the peeling sheet A had liquid-absorption characteristics that a liquid-absorption amount within 0.1 second after getting in contact

with the above-mentioned developing solution was 36 ml/m², and a liquid-absorption amount within 0.2 second after the same was 43 ml/m². The peeling sheet B had liquid-absorption characteristics that a liquid-absorption amount within 0.1 second after getting in contact with the above-mentioned developing solution was 6 ml/m², and a liquid-absorption amount within 0.2 second after the same was 13 ml/m². The peeling sheet C had liquid-absorption characteristics that a liquid-absorption amount within 0.1 second after getting in contact with the above-mentioned developing solution was 4 ml/m², and a liquid-absorption amount within 0.2 second after the same was 9 ml/m².

By using the above-mentioned peeling sheets A to C, contact with a light-sensitive material was carried out changing the contact time to about 0.2 second, about 3 seconds and about 6 seconds and the peeled state of the light-sensitive material was evaluated by the following evaluation standard. The results are shown in the following table.

O: The emulsion layer was completely removed, and as a result of printing, good ink-receptive property was shown.

Δ: The emulsion layer was partially not removed, and as a result of printing, an inferior ink-receptive property was shown.

X: The emulsion layer was never removed.

Contact time	About 0.2 second	About 3 seconds	About 6 seconds
Peeling sheet A	O	O	O
Peeling sheet B	X	Δ	O
Peeling sheet C	X	Δ	O

<Consideration>

From the results of the above experiment, it can be understood that the peeling sheet A of the present invention could peel off the emulsion layer completely with a contact time of about 3 second or shorter, and particularly an extremely short time of about 0.2 second. To the contrary, in the comparative peeling sheets B and C which do not satisfy the liquid-absorbing rate defined in Claim 1 of the present application, it was possible to peel off the emulsion layer with a contact time of about 6 seconds, but accompanying with shortening the contact time, peeled state of the emulsion layer become worse, and completely no peel off could be carried out with an extremely short contact time of about 0.2 second.

According to the above, I do not believe that the present invention is anticipated by Coppens et al.

4. I further declare that all statements made herein of my own knowledge are true and that all statements made in information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001, of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: November 19, 2003

By: Yasuo Tsubai
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